Claims

[c1] What is claimed is:

1.An audio system comprising:

a playing circuit for generating an audio signal;

at least a speaker electrically connected to the playing circuit for playing sound according to the audio signal;

a detector for detecting a communication signal of a mobile phone or an automobile phone and generating a corresponding mute signal; and

a mute circuit electrically connected to the detector and the player circuit for receiving the mute signal;

wherein the mute circuit stops the speaker from playing sound after the mute circuit receives the mute signal.

[c2] 2.The audio system of claim 1 being an automobile audio system.

[c3] 3.The audio system of claim 1 wherein the detector generates the mute signal when a signal voltage of the communication signal is larger than a predetermined value so as to make the mute circuit stop the speaker from playing sound.

[c4] 4.The audio system of claim 1 wherein the detector generates the mute signal when a sustained time of the communication signal is longer than a predetermined time so as to make the mute circuit stop the speaker from playing sound.

[c5] 5.The audio system of claim 1 wherein the communication signal is a radio communication signal.

[c6] 6.The audio system of claim 5 wherein a frequency band of the radio communication signal is about 900 MHz.

[c7] 7.The audio system of claim 5 wherein a frequency band of the radio communication signal is about 1800 MHz.

[c8] 8.The audio system of claim 5 wherein the detector comprises:

a receiver for receiving the radio communication signal;

a high-pass filter for filtering out low frequency waves of the radio communication signal;

an envelope detector electrically connected to the high-pass filter for measuring the direct current signal voltage of the communication signal and generating a corresponding voltage signal; and

a control circuit for generating the mute signal according to the voltage signal.

[c9] 9.The audio system of claim 8 wherein the detector further comprises a delay circuit electrically connected between the envelope detector and the control circuit for delaying the voltage signal for a predetermined delay time and generating a corresponding delay signal, and the control circuit generates the mute signal according to the delay signal.

[c10] 10.The audio system of claim 8 wherein a pass-band of the high-pass filter is over 900 MHz or 2500 MHz.

[c11] 11.An automatic mute device for an audio system, the audio system comprising:

a playing circuit for generating an audio signal; and

at least a speaker electrically connected to the playing circuit for playing sound according to the audio signal;

the automatic mute device comprising:

a detector for detecting a communication signal of a mobile phone or an automobile phone and generating a corresponding mute signal; and

a mute circuit electrically connected to the detector and the player circuit of the audio system for receiving the mute signal;

wherein the mute circuit stops the speaker from playing sound after the mute circuit receives the mute signal.

[c12] 12.The automatic mute device of claim 11 wherein the audio system is an automobile audio system.

[c13] 13.The automatic mute device of claim 11 wherein the detector generates the mute signal when a signal voltage of the communication signal is larger than a predetermined value so as to make the mute circuit stop the speaker from playing sound.

[c14] 14.The automatic mute device of claim 11 wherein the detector generates the mute signal when a sustained time of the communication signal is longer than a predetermined time so as to make the mute circuit stop the speaker from playing sound.

[c15] 15.The automatic mute device of claim 11 wherein the communication signal is a radio communication signal.

[c16] 16.The automatic mute device of claim 15 wherein a frequency band of the radio communication signal is about 900 MHz.

[c17] 17.The automatic mute device of claim 15 wherein a frequency band of the radio communication signal is about 1800 MHz.

[c18] 18.The automatic mute device of claim 15 wherein the detector comprises:
a receiver for receiving the radio communication signal;
a high-pass filter for filtering out low frequency waves of the radio communication signal;
an envelope detector electrically connected to the high-pass filter for measuring the direct current signal voltage of the communication signal and generating a corresponding voltage signal; and
a control circuit for generating the mute signal according to the voltage signal.

[c19] 19.The automatic mute device of claim 18 wherein the detector further comprises a delay circuit electrically connected between the envelope detector and the control circuit for delaying the voltage signal for a predetermined delay time and generating a corresponding delay signal, and the control circuit generates the mute signal according to the delay signal.

[c20] 20.The automatic mute device of claim 18 wherein a pass-band of the high-pass filter is over 900 MHz or 2500 MHz.